HOUSSEM CHKILI

Aeronautical Engineer
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SOFTWARE SKILLS

MATLAB, Catia V5, Solidworks, Solidedge ST10, Mastercam, Ansys workbench, Ansys APDL, Spaceclaim, Fluent, MSC Nastran, MSC Patran, Abaqus, Python, C, Word, Excel, Power Point. IBM SPSS, SAP ByDesign, SAP S 4/HANA.

EDUCATIONAL BACKGROUND

October 2017 – January 2020 **Master degree of Aircraft Manufacturing Engineering**
Shenyang Aerospace University, China

September 2013 – Jun 2016 **Bachelor degree of Aeronautical Engineering**
University College of Aviation and Technology of Tunis (ESAT)

September 2011 - Jun 2013 **Preparatory Studies for Engineering Universities Entry**
University College of Aviation and Technology of Tunis (ESAT)

September 2010 - Jun 2011 **Baccalaureate of Science Degree**
Rue de Russie high school, Tunis

EXPERIENCE

February 2018- January 2020 **Key Laboratory of Fundamental Science of National Defence of Aeronautical Digital Manufacturing Process: Shenyang Aerospace University**

Final year project: Design of the testing system and equipment for thermal shock testing of piping and fittings.

- Literature review study relating to thermal shock. an overview of the theoretical background of thermal shock. Then, variety of techniques are reviewed to show the range of thermal shock techniques available,
- Establish a methodology to design a cycle thermal machine.
- Modelling the hydraulics components diagram.
- Drawing the components in Solidworks and create and assembly design.

February 2016 – July 2016 **Student internship**

Aerospace Laboratory: Shenyang Aerospace University

Final year project: Wing Aircraft Design and Assembly Jig

- Realize 3D parts (two half wings and a jig) and sub in assembly (fins, ribs front spar and rear spar) using libraries part design and generative Shape design software design Catia v5.
- Establish the nomenclature of the drawn subsets.
- Assembling subassemblies with the Catia v5 assembly design library
- Calculates using the finite volumes method the aerodynamic forces (lift, drag, forward) using ANSYS workbench static analysis tool, FLUENT and coupling tool.
- Calculation of deformation due to the aerodynamic load of the wing by performing fluid coupling one-way structure for a static structure using ANSYS / static analysis
- Using the optimisation topology tool in Ansys to reduce the weight of the jig and redesign the new jig with Catia

September 2014 – September 2014

Student internship
Tunisair

An internship familiarization with the activities of the company including those of aircraft maintenance. It is an internship of the practical phase complementary to the theoretical training. Comprehensive knowledge of the theory, aircraft components, maintenance procedures application and operation of aircraft.

- Base maintenance: Light A checks, Heavy C & D checks.
- Line maintenance: Pre-Flight, Daily, Weekly checks.
- Perform scheduled routine maintenance and unscheduled defect rectification.
- Detailed inspections, Aircraft parts replacements, Functional & operational tests, Troubleshooting, Deactivation & Reactivation of Aircraft systems, etc.
- Fleet consists of Airbus A319, A320, A330 & Boeing 737.

ACADEMIC PROJECT

Shenyang Aerospace University

- Statistical study carried out on the number of hours spent on social networks for Shenyang Aerospace University students using IBM SPSS software.
- Study of air flow on an airplane wing using a CFD approach with ANSYS / FLUENT.
- Static analysis of a Buggy cage subjected to mechanical and thermal conditions under Nastran / Patran.

University College of Aviation and Technology of Tunis (ESAT)

- Bibliographic study of the operation and maintenance techniques of the IDG of the CFM56-7B engine.
- Optimization of the suspension system of a BMW engine with MATALB / Simulink tools.
- Study, design and manufacture a solar water heater.
- Design a single cylinder piston engine using Catia V5.
- Study and realization of a proximity detection system with an Arduino board.

CERTIFICATIONS

MASTERCAM ESSENTIALS
STEM: PRINCIPLES OF MACHINING
CNC Software, Inc.
TUM Lean Six Sigma Yellow Belt Certification
Technical University of Munich (edX).
Professional Certificate Six Sigma and Lean: Quantitative Tools for Quality and Productivity.
QPLS1x: Six Sigma: Define and Measure
QPLS2x: Six Sigma: Analyse, Improve, Control
QPLS3x: Lean Production
Technical University of Munich (edX).
Digital Manufacturing & Design
Digital Manufacturing & Design by University at Buffalo & The State University of New York (Coursera).
Python Data Structures
Python for everybody
University of Michigan (Coursera).
Flight management system B737
University College of Aviation and Technology of Tunis (ESAT).
Optimization Analysis Using Ansys, Udemy
Ansys Static Analysis, Udemy
Ansys Dynamic Analysis, Udemy.
Management Quality System ISO 9001: 2015
ADAM-Formation and Consulting.

SKILLS

- Complex data interpretation (charts, simulations)
- Strong knowledge of CFD (Computational Fluid Dynamics), FEA (Finite Elements Analysis), static analysis, modal analysis, dynamic analysis, thermal steady state and transient analysis.
- Adapt new concepts quickly while working under pressure.
- Strong written and verbal communication skills in both English and French.
- A very good 3D modelling and drawing skills.
- Extremely keen on learning new skills and experiences.
- Proactive and able to work independently and in a team to learn from another perspective.
- High levels of motivation and flexible approach in terms of working hours.

LANGUES

French English Arabic Chinese

INTERESTS

Sport: swimming, football, cycling.
Hobbies: reading, music, cinema, travel, photography.
Others: collaboration, creativity, punctuality, adaptability.